



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,990	04/02/2004	Richard Rund	551.0006	7262
25534	7590	09/20/2005		
CAHN & SAMUELS LLP 2000 P STREET NW SUITE 200 WASHINGTON, DC 20036			EXAMINER VERBITSKY, GAIL KAPLAN	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/815,990

Applicant(s)

RUND, RICHARD

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-8 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/09/04

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6-7 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U.S. 20030169803A1) in view of Mann et al. (U.S. 6809653) [hereinafter Mann], EP 03093029A1 [hereinafter EP] and Paddock et al. (U.S. 4404813) [hereinafter Paddock].

Lee discloses in Figs. 5-6 an electronic digital thermometer comprising a housing having a first portion A and a second portion 32. Although it is not shown in Figs. 5-6, the fact that the first portion contains a circuit (microprocessor/ temperature conversion logic) 42 would imply that the first portion comprises a cavity where the microprocessor is enclosed. The thermometer also comprises a probe portion containing a temperature-sensing element 37. (The numeral A has been added by the Examiner, see attachment #1 to the previous Office Action).

Lee does not explicitly teach a waterproof seal, that the conversion logic is encapsulated in a low thermal conductivity material, and an insulating member, as stated in claim 1, with the remaining limitations of claims 1-3, 6-7.

Mann discloses a device comprising a housing. The housing includes upper and lower cases (first and second portions) connected to each other with a waterproof

Art Unit: 2859

seal to permit cleaning with water, cleaner, or the like. The waterproof seal is a sonic weld, sealing rings (gasket), silicone sealant (thermally resistant glue).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Lee, so as to have a housing sealed against leakage, as taught by Mann, so as to protect the electronics from moisture and contaminants of a harsh environment.

EP teaches to insulate a circuit by embedding it within an epoxy resin.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Lee, so as to have a encapsulate the circuit/ microprocessor in an epoxy potting compound, as taught by EP, so as to protect the circuit from effects of environment.

Paddock teaches in Fig. 3 to apply an insulating foam (insulating member) 58 in a cavity of a housing to define an additional sealing means.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Lee, so as to have a foam insulating pad, as taught by EP, so as to provide an additional sealing member to a housing, as already suggested by Paddock.

With respect to claim 7: the use of the particular material, i.e., polystyrene, as stated in claim 7, for the insulating member, absent any criticality, is only considered to be the "optimum" material that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide for the insulating member disclosed by Lee since it has been held to be a matter of obvious

Art Unit: 2859

design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. In re Leshin, 125 USPQ 416.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the insulating member in the device, disclosed by Lee, of polystyrene because polystyrene is known to be both thermal and electrical insulator and also providing a resilient protection to a housing from accidental impact. With respect to the preamble of claim 1: the preamble of the claims does not provide enough patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and a portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. Kropa v. Robie, 88 USPQ 478 (CCPA 1951).

3. Claim 4 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Lee, Mann, EP and Paddock as applied to claims 1-3, 6-8 above, and further in view of Jones, Jr. (U.S. 3138776) [hereinafter Jones].

Lee, Mann, EP and Paddock disclose the device/ method as stated above.

They do not explicitly teach a screw as stated in claim 4.

Jones discloses in Fig. 1 a device comprising a housing. The housing includes a first portion containing a circuit and a second portion (cover) 21 connected to each other with a screw connection, as shown in Fig. 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Lee, Mann, EP and Lee, so as to have also a screw connection between the housing portions because this type of connection / attachment considered to be nothing more than the choice of engineering skill, the choice or design, because: 1) neither non-obvious nor unexpected results, i.e., results which are different in kind and not in degree from the results of the prior art, will be obtained as long as the portions are attached as already suggested by Jones, 2) threaded / screw attachment claimed by applicant and the attachment used by Lee, Mann, EP, Paddock are very well known alternate types of attaching means which will perform the same function, if one is replaced with the other, of attaching the two portions together, if one is replaced with the other, and 3) the use screw/ threaded attachment by applicant is considered to be nothing more than the use of one of the numerous and well known alternate types of attaching means that a person having ordinary skill in the art would have been able to provide using routine experimentation in order to sealingly attach the two portions of the housing together.

4. Claim 8 is finally rejected under 35 U.S.C. 103(a) as being unpatentable over Zeindler (U.S. 5743648) in view of Lee, EP and Paddock.

Zeindler discloses in Fig. 2 a dishwasher safe thermometer comprising a thermometer housing having a first portion 6 having a cavity containing a thermometer electronics. The first portion 6 of the housing is watertight sealed by means of a washer 10 to a second portion of a housing (base) 4, a probe 2 is connected to the thermometer housing. When assembled, the probe contains a temperature-sensing element 31.

Zeiner does not explicitly teach that the temperature conversion logic is encapsulated in a material of a low thermal conductivity (insulation), and applying a sufficient amount of insulation to the cavity to fill the cavity, as stated in claim 8. Although, it is apparent from Fig. 5B, that a display is not an analogous but more likely a digital display, Zeindler does not explicitly state that the thermometer is digital, and thus, does not state that the electronics a temperature conversion logic.

Lee discloses in Figs. 5-6 an electronic digital thermometer. Although it is not shown in Figs. 5-6, the fact that the first portion contains a circuit (microprocessor/ temperature conversion logic) 42 would imply that the first portion comprises a cavity where the microprocessor is enclosed. The device has a digital display and thus, digital circuit/ logic.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Zeindler, so as to have a digital display and a digital circuit (temperature conversion logic), as taught by Lee, so as to provide a device with a less complicated circuit and easy readable display with more aesthetic appearance, as very well known in the art.

EP teaches to insulate a circuit by embedding it within an epoxy resin.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Zeindler, so as to have a encapsulate the circuit/ microprocessor in an epoxy potting compound, as taught by EP, so as to protect the circuit from effects of environment.

Paddock teaches in Fig. 3 to apply an insulating foam (insulating member) 58 in a cavity of a housing to define an additional sealing means.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device, disclosed by Zeindler, so as to have a foam insulating pad, as taught by EP, so as to provide an additional sealing member to a housing, as already suggested by Paddock.

The method steps will be met during the normal operation of the device stated above.

### ***Response to Arguments***

5. Applicant's arguments filed on July 08, 2005 have been fully considered but they are not persuasive.

Applicant states that Mann and EP are non-analogous art. This argument is not persuasive because, it has been held that the determination that a reference is from non-analogous art is twofold. First, we decide if the reference is within the field of inventor's endeavor. If it is not, we proceed to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved. Applicant states that Francis is a non-analogous art. In response to applicant's statement that Francis is a non-analogous art, it has been held that the determination that a reference is from non-analogous art is twofold. In re Wood, 202 USPQ 171, 174. In this case, the Examiner uses Mann and EP only as secondary references for their teaching respectively: that the housing could be sealed and that the circuit could be insulated with an epoxy resin.

Applicant states that the Examiner does not have a motivation to combine Lee with Mann, EP and Paddock. This argument is not persuasive because, the Examiner



Art Unit: 2859

recognizes that there should be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. the test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). The references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969.

Applicant states that EP suggests nothing of waterproofing and insulating temperature conversion logic of a digital thermometer. EP teaches that an electronic circuit of a device can be embedded in epoxy resin (insulated), Mann teaches a waterproof seal. Therefore, the combination of Lee, Mann and EP teaches a waterproof seal.

With respect to claim 8: the arguments are now moot in view of the new ground of rejection necessitated by the present amendment.

### ***Conclusion***

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2859

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

**Meisner US 4601589** discloses in Figs. 1-2 a digital thermometer comprising a housing having two chambers, the chambers are glued together (Fig. 1) or welded together (Fig. 2) in a water-tight manner.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky

Primary Patent Examiner, TC 2800



September 02, 2005